

Remarks

Claims 36-41, 57, and 64 are pending.

Double Patenting

Claims 39-41 and 57 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 1 of U.S. Patent No. 6,661,548 in view of Zabka, U.S. Patent No. 5,223,955. Claims 36-38 and 64 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 1 of U.S. Patent No. 6,661,548 in view of Kasazumi et al., U.S. Patent No. 5,317,435 (Kasazumi) and Benton, U.S. Patent No. 4,834,476.

In response, a terminal disclaimer pursuant to 37 CFR § 1.321(c) is filed herewith. Submission of this terminal disclaimer should not be construed as an admission of obviousness of any of the rejected claims over the cited references.

Rejection of Claims under 35 U.S.C. § 103

Claims 39-41 and 57 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Kihara et al., U.S. Patent No. 5,594,559 (Kihara) in view of Zabka. The applicants respectfully traverse this rejection.

Kihara and Zabka neither teach nor suggest an apparatus including:

a voxel-control lens located in the path of the object beam and proximate to the holographic recording material, *the voxel control lens being capable of varying the size of at least one voxel and being capable of making the rendered image displayed by the object beam unit as seen from the viewpoint of an elemental hologram appear at a greater apparent distance relative to the holographic recording material*; and

as required by independent claim 39 and generally required by independent claim 57.

Regarding the claimed voxel-control lens, the Examiner refers to lens 47 of Zabka. Column 6, lines 4-12 state:

The two cylindrical lenses 43 and 47 enhance image fidelity better than would be the case for a smaller cylindrical lens system, where noise would be greatly magnified. Lenses 43 and 47 also provide more flexibility than the single double convex oil lens previously used at Multiplex. The use of these two lenses also gives easy focus control of converging line focus 51.

The placement of these lenses greatly effects depth of field of the resultant hologram.

Thus, while Zabka's lens 47 "effects depth of field" Zabka neither teaches nor suggests a voxel control lens that is both (1) capable of varying the size of at least one voxel, and (2) capable of making the rendered image as seen from the viewpoint of an elemental hologram *appear at a greater apparent distance relative to the holographic recording material*.

Accordingly, the applicants respectfully submit that claim 39 is allowable over Kihara. Claims 40 and 41 depend from claim 39 and are allowable for at least this reason.

Claims 36-38 and 64 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Kihara in view of Kasazumi and Benton. The applicants respectfully traverse this rejection.

Kihara Kasazumi and Benton neither teach nor suggest an apparatus for printing holographic stereograms including:

an object beam unit, including a *removable* band-limited diffuser, for displaying a rendered image and for conditioning the object beam with the rendered image to interfere with the reference beam at a chosen elemental hologram, wherein the removable band-limited diffuser includes a deterministic phase pattern designed to diffuse light in at least one of a specific pattern and a specific direction, and *wherein the removable band-limited diffuser is designed for a wavelength corresponding to a wavelength of the coherent beam*;

a removable masking plate located in the path of the reference beam and proximate to the holographic recording material, *wherein the removable band-limited diffuser and the removable masking plate form a matched set configured to allow exposure of a particular size hogel*; and

as required by independent claim 36.


Regarding the claimed diffuser, the Examiner refers to diffuser 200 of Kasazumi. Nothing in the cited portions of Kasazumi teaches or suggests that diffuser 200 is removable, is band-limited, or is designed for a wavelength corresponding to a wavelength of the coherent beam, all as required by the applicants' claim. The Examiner

goes on to state that “. . . the diffuser is band-limited since it is designed to act on laser light of a specific wavelength band.” Office Action of June 9, 2005, p. 5, ¶2. However, the Examiner has provided no support for this conclusion.

Regarding the claimed removable masking that forms a matched set with the diffuser that is configured to allow exposure of a particular size hogel, the Examiner states that “. . . the diffuser and the masking plate act in concert to allow exposure of a particular hogel.” Office Action of June 9, 2005, p. 5, ¶2. Even if the Examiner is correct in this assertion, it fails to teach or suggest a matched set that is “configured to allow exposure of a particular size hogel.”

Accordingly, the applicants respectfully submit that claim 36 is allowable over Kihara, Kasazumi, and Benton. Claims 37, 38, and 64 depend from claim 36 and are allowable for at least this reason.

In view of the remarks set forth herein, the application is believed to be in condition for allowance and a notice to that effect is solicited. Nonetheless, should any issues remain that might be subject to resolution through a telephonic interview, the examiner is requested to telephone the undersigned.

I hereby certify that this correspondence is being deposited with the United States Postal Service as First Class Mail in an envelope addressed to: Mail Stop Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, VA, 22313-1450, on <u>Nov. 9</u> , 2005.	
 Attorney for Applicant(s)	<u>11/9/05</u> Date of Signature

Respectfully submitted,



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